

Bill Brown  
FOIA Exemption 6

December 17, 2012

Richard Mendolia, Project Manager  
Groundwater Section  
Arizona Dept. of Environmental Quality  
1110 W. Washington Street, MC5415B-3  
Phoenix, AZ 85007

Dear Mr. Mendolia:

I am writing to ask the Arizona Department of Environmental Quality's (ADEQ) to revoke a temporary individual Aquifer Protection Permit (APP) provided to Curis Resources (Curis) for operation of an in-situ copper mine Production Test Facility (PTF) in Florence, Arizona. It is my strong belief that allowing Curis to proceed with this PTF, even on a limited basis, is fraught with problems and has a real potential to pollute our area's drinking water for generations.

I have reviewed a myriad of documents and information regarding the PTF proposal by Curis under this temporary permit. I should note that I am not a geologist or engineer qualified to analyze the numerous technical factors that complicate this project. So please bear with me as I attempt to clarify my layperson concerns.

**Issue #1: The Curis PTF will be conducted near a prime drinking water aquifer for our area and may contaminate our drinking water.** I understand from our local water supply company, Johnson Utilities, that they draw drinking water for our area from the lower basin fill unit (LBFU) that is adjacent to the APP project area. The APP allows Curis to inject sulfuric acid into the bedrock and dissolve the minerals to extract copper. There is no way to guarantee that this acid and resulting sulfate contamination will not migrate into the drinking water supply. The bedrock has faults and fractures and there are hundreds or thousands of unabandoned core holes that may or will allow this sulfate contamination to leach into the adjacent water supply. This is a known problem previously in this area and in similar projects in other parts of the country. Properly abandoning core holes in a 500 foot proximity to the PTF as required by the APP is a start, but this should be a much broader proximity. I believe this issue of faults, fractures and unabandoned core holes should be sufficient reason to stop this project.

**Issue #2: Under the APP terms this project will not be adequately monitored.** Curis is proposing to monitor potential migration of the sulfate contaminants into the LBFU by way of existing wells. Curis' proposal shows a potential five-year contaminant migration plume. The closest monitoring well for this one-two year project is well beyond the alleged five-year plume area and is only proposed for sampling once every three to six months. This means that if contamination is headed for the LBFU it will not be known

until years after this PTF has ceased operation and (presumably) a commercial operation, pumping billions of pounds of sulfuric acid into the bedrock, is well underway. If this project were to proceed then more compliance wells need to be located much closer to the PTF to assure that any contaminant migration is discovered long before it has any chance to reach the drinking water supply. Further, monitoring should occur much more frequently (biweekly) to discover contaminant migration as soon as possible. While more wells and more monitoring costs more money this seems a prudent requirement considering the strong potential for contamination of our drinking water.

**Issue #3: Experimenting with in-situ mining in a residential area.** Curis has never developed nor operated a commercially successful mine of any type and has no prior experience utilizing in-situ mining. In North America, there are no commercially successful in-situ copper mines of the type proposed by Curis. Uranium mining companies using similar extraction methods in Texas, Colorado, and other states have never been able to restore the aquifer to pre-mining conditions. Clearly, the technology and processes for in-situ mining are too new and risky to experiment with in an area in such close proximity to potable water sources for existing, nearby residential development.

**Issue #4: What happens if the project fails and the drinking water aquifer is polluted?** Curis may fail in this project. They may pollute our drinking water. They may decide that if that happens, it is better to go bankrupt than spend the many millions of dollars it would take to restore the groundwater to its previous condition and compensate property owners for many more millions in lost property values. What is your backup plan? As the environmental agency in charge of overseeing this project, how have you assured, in the event of an environmental disaster that we and other citizens of Arizona are not left to foot the bill for cleanup?

As stated on your website, the mission of the ADEQ is "to protect the public health and the environment". Please re-evaluate this APP and assure that your stated mission is the **top priority** of the APP and that public safeguards are not merely met. If the project results, as I believe it will, in contamination of our groundwater, then a great injustice to homeowners such as me will have occurred. Revoke this permit.

Thank you for your consideration of these issues.

Sincerely,



Bill Brown

cc: Water Quality Division Director, Michael Fulton  
Environmental Protection Agency, Nancy Rumrill